WHAT IS CLAIMED IS:

1. An apparatus for processing workpieces in a treatment process, said apparatus comprising:

a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to the treatment process; and

a partition that is configured to cooperate with said chamber such that the partition is disengagably removable from the chamber and, thereafter, re-engagable with the chamber for selectively dividing the processing stations from one another.

2. The apparatus of claim 1 wherein said process generates process related products that are introduced into said chamber and wherein said partition and said chamber cooperate with one another to provide only for non-line-of-sight travel of certain ones of the process related products between said processing stations, whereby the certain ones of the process related products, that are unable to travel non-line-of-sight are, therefore, unable to move between said processing stations when the partition is engaged with the chamber.

3. The apparatus of claim 2 wherein said partition cooperates with said chamber to define a plurality of circuitous paths between the processing stations to provide only for said non-line-of-sight travel therealong such that other ones of the process related products, which can travel along a non-line-of-sight path, are able to move between the processing stations.

4. The apparatus of claim 3 wherein said other ones of the process related products include non-reactive species.

5. The apparatus of claim 3 wherein the certain ones of the process related materials include charged species.

6. The apparatus of claim 5 wherein said charged species include at least one of ions, electrons and radicals.

7. The apparatus of claim 1 wherein said partition cooperates with said chamber in a way that serves to equilibrate a process pressure between the first and second processing stations.

8. The apparatus of claim 1 wherein said chamber includes a chamber bowl that is configured for receiving a chamber lid in a closed position to seal a chamber interior when so received and said chamber bowl is configured for supporting said partition.

9. The apparatus of claim 8 wherein said chamber bowl includes at least a first pair of opposing chamber sidewalls extending from a chamber base and each one of the first pair of the chamber sidewalls defines a slot that is transverse with respect to the chamber bottom to form a pair of opposing chamber slots and said partition includes a pair of opposing side margins such that that the partition is supported in the chamber bowl, at least in part, having each one of the pair of opposing side margins at least partially received in each one of the pair of opposing chamber slots and in a spaced apart relationship from each respective one of the first pair of chamber sidewalls.

10. The apparatus of claim 9 wherein each side margin of the partition cooperates with one of the opposing chamber slots to define a gap configuration such that a non-line-of-sight path of travel is required in passing through said gap configuration from one processing station to the other processing station.

11. The apparatus of claim 10 wherein said partition includes an overall thickness and each side margin defines an outwardly extending elongated tab having a tab thickness that is less than said overall thickness and said elongated tab extends into one of said opposing chamber slots.

12. The apparatus of claim 8 wherein said chamber bowl cooperates with the partition for supporting the partition in a spaced apart relationship from the chamber lid when the chamber lid is in said sealed position.

13. The apparatus of claim 12 wherein said partition includes an uppermost margin, nearest the chamber lid in said sealed position, and said uppermost margin cooperates with the lid to define a gap configuration such that a non-line-of-sight path of travel is required in passing through said gap configuration from one processing station to the other processing station.

14. The apparatus of claim 13 wherein said chamber lid defines a channel proximate to said uppermost margin of the partition such that at least a portion of the uppermost margin is at least partially received within said channel with the chamber lid in the sealed position.

15. The apparatus of claim 14 wherein said partition includes a first major side facing a first one of the processing stations and a second, opposite major side facing a second one of the processing stations when engaged with the chamber and having an overall thickness between the first and second sides and said uppermost margin includes an elongated tab which projects toward the chamber lid in the closed position having a tab thickness that is less than said overall thickness such that the tab thickness is received in said channel.

16. The apparatus of claim 15 wherein said elongated tab is inset with respect to each of said first and second major sides of the main body along said uppermost margin of the partition.

17. The apparatus of claim 1 wherein said processing stations are arranged along a line oppositely across said partition with respect to one another, when installed in said chamber, and said partition defines a partition plane that is at least generally normal to said line.

18. The apparatus of claim 17 wherein said multi-workpiece chamber includes a chamber bottom and an arrangement of chamber sidewalls extending from the chamber bottom for receiving a chamber lid and said partition plane symmetrically divides the multi-workpiece chamber into equal halves.

19. The apparatus of claim 1 wherein said chamber defines an exhaust port and including an exhaust arrangement in communication with said exhaust port for conducting an exhaust flow from the multi-workpiece chamber and including a flow divider arrangement which divides the exhaust flow into at least two exhaust flow portions that leave said multi-workpiece chamber in a way which enhances uniformity of said treatment process for the first and second workpiece stations.

20. The apparatus of claim 1 wherein said workpieces are semiconductor wafers.

21. A method for processing workpieces in a system using a treatment process, said method comprising:

providing a multi-workpiece chamber, as part of said system, including at least two processing stations, each of which is configured for exposing one of the workpieces to the treatment process; and

configuring a partition to cooperate with said chamber such that the partition is disengagably removable from the chamber and, thereafter, re-engagable with the chamber for selectively dividing the processing stations from one another when engaged with the chamber.

22. The method of claim 21 wherein said process generates process related products that are introduced into said chamber and wherein configuring includes causing said partition and said chamber to cooperate with one another to provide only for non-line-of-sight travel of certain ones of the process related products between said processing stations, whereby the certain ones of the process related products, that are unable to travel non-line-of-sight are, therefore, unable to move between said processing stations when the partition is engaged with the chamber.

23. The method of claim 22 wherein said partition cooperates with said chamber to define a plurality of circuitous paths between the processing stations to provide only for said non-line-of-sight travel therealong such that other ones of the process related materials, which can travel along a non-line-of-sight path, are able to move between the processing stations.

24. The method of claim 23 wherein said other ones of the process related products include non-reactive species.

25. The method of claim 23 wherein the certain ones of the process related materials include charged species.

26. The method of claim 25 wherein said charged species include at least one of ions, electrons and radicals.

27. The method of claim 21 wherein said partition is configured to cooperate with said chamber in a way that serves to equilibrate a process pressure between the first and second processing stations.

28. The method of claim 21 wherein providing includes arranging said chamber to include a chamber bowl that is configured for receiving a chamber lid in a closed position to seal a chamber interior when so received and said chamber bowl is configured for supporting said partition.

29. The method of claim 28 wherein said chamber bowl is arranged to include at least a first pair of opposing chamber sidewalls extending from a chamber base and each one of the first pair of the chamber sidewalls defines a slot that is transverse with respect to the chamber bottom to form a pair of opposing chamber slots and said partition includes a pair of opposing side margins such that that the partition is supported in the chamber bowl, at least in part, having each one of the opposing side margins at least partially received in each one of the pair of opposing chamber slots and in a spaced apart relationship from each respective one of the first pair of chamber sidewalls.

30. The method of claim 29 wherein each side margin of the partition cooperates with one of the opposing chamber slots to define a gap configuration such that a non-line-of-sight path of travel is required in passing through said gap configuration from one processing station to the other processing station.

31. The method of claim 30 including forming said partition to include an overall thickness and forming each side margin to define an outwardly extending elongated tab having a tab thickness that is less than said overall thickness and said elongated tab extends into one of said opposing chamber slots.

32. The method of claim 28 including configuring said chamber bowl for supporting the partition in a spaced apart relationship from the chamber lid when the chamber lid is in said sealed position.

33. The method of claim 32 including forming said partition to include an uppermost margin, nearest the chamber lid in said sealed position, and further configuring said uppermost margin to cooperate with the chamber lid to define a gap configuration such that a non-line-of-sight path of travel is required in passing through said gap configuration from one processing station to the other processing station.

34. The method of claim 33 wherein said chamber lid is configured to define a channel proximate to said uppermost margin of the partition such that at least a portion of the uppermost margin is at least partially received within said channel with the chamber lid in the sealed position.

35. The method of claim 34 wherein said partition includes a first major side facing a first one of the processing stations and a second, opposite major side facing a second one of the processing stations when engaged with the chamber and having an overall thickness between the first and second sides and said uppermost margin includes an elongated tab which projects toward the chamber lid in the closed position having a tab thickness that is less than said overall thickness such that the tab thickness is received in said channel.

36. The method of claim 35 including insetting said elongated tab with respect to each of said first and second major sides along said uppermost margin of the partition.

37. The method of claim 21 including arranging said processing stations along a line oppositely across said partition with respect to one another, when installed in said chamber, and said partition defines a partition plane that is at least generally normal to said line.

38. The method of claim 37 wherein said multi-workpiece chamber includes a chamber bottom and an arrangement of chamber sidewalls extending from the chamber bottom for receiving a chamber lid and said partition plane symmetrically divides the multi-workpiece chamber into equal halves.

39. The method of claim 21 wherein said chamber defines an exhaust port and including an exhaust arrangement in communication with said exhaust port for conducting an exhaust flow from the multi-workpiece chamber and including a flow divider arrangement which divides the exhaust flow into at least two exhaust flow portions that leave said multi-workpiece chamber in a way which enhances uniformity of said treatment process for the first and second workpiece stations.

40. The method of claim 21 wherein said workpieces are semiconductor wafers.

41. An apparatus for processing workpieces in a treatment process which generates process related products, said apparatus comprising:

a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to a treatment process; and

a partition arrangement positioned between said processing stations, supported by the multi-workpiece chamber, and configured to cooperate with said chamber to provide only for non-line-of-sight travel of certain ones of the process related products between said processing stations, whereby the certain ones of the process related products, that are unable to travel non-line-of-sight are, therefore, unable to move between said processing stations when the partition is engaged with the chamber.

42. The apparatus of claim 41 wherein the certain process related products include charged species.

43. The apparatus of claim 41 wherein said workpieces are semiconductor wafers.

44. A method for processing workpieces in a treatment process which generates process related products, said method comprising:

providing a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to a treatment process; and

positioning a partition arrangement between said processing stations, supported by the multi-workpiece chamber, and configured to cooperate with said chamber to provide only for non-line-of-sight travel of certain ones of the process related products between said processing stations, whereby the certain ones of the process related products, that are unable to travel non-line-of-sight are, therefore, unable to move between said processing stations when the partition is engaged with the chamber.

45. The method of claim 44 wherein the certain process related products include charged species.

46. The method of claim 44 wherein said workpieces are semiconductor wafers.

47. An apparatus for processing workpieces, said apparatus comprising:

a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to a treatment process, and defining an exhaust port that is positioned at least generally between and equidistant from each of said processing stations for use in evacuating said chamber in association with said treatment process; and

an exhaust arrangement in flow communication with said exhaust port for conducting an exhaust flow from the multi-workpiece chamber and including a flow divider arrangement which divides the exhaust flow into at least two exhaust flow portions that leave said multi-workpiece chamber in a way which enhances uniformity of said treatment process for the first and second workpiece stations.

48. The apparatus of claim 47 wherein said flow divider arrangement causes the exhaust flow portions to be at least approximately equal to one another.

49. The apparatus of claim 47 wherein said multi-workpiece chamber includes a chamber base which defines said exhaust port having said processing stations located on opposing sides thereof.

50. The apparatus of claim 47 wherein said exhaust arrangement includes a tailpiece that is attached to the multi-workpiece chamber at the exhaust port to define an exhaust channel and said flow divider arrangement includes a divider plate that is located in said exhaust channel to form the two flow portions.

51. The apparatus of claim 50 wherein said tailpiece is at least generally cylindrical in configuration to define a cylindrical exhaust passage.

52. The apparatus of claim 50 wherein said processing stations are arranged along a line extending therebetween and wherein said divider plate is arranged at least generally normal to the line and defines a plane which bisects said exhaust port.

53. The apparatus of claim 52 wherein said multi-workpiece chamber includes an arrangement of chamber sidewalls extending from a chamber base for receiving a chamber lid and said plane symmetrically divides the multi-workpiece chamber into equal halves.

54. The apparatus of claim 50 wherein said tailpiece is in the form of a pump spool having a length and said divider plate extends at least partially along said length.

55. The apparatus of claim 54 wherein said divider plate is longer than said length so as to extend outward from the pump spool in a direction that is away from said chamber.

56. The apparatus of claim 47 wherein said workpieces are semiconductor wafers.

57. A method for processing workpieces, said method comprising:

providing a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to a treatment process, and defining an exhaust port that is positioned at least generally between and equidistant from each of said processing stations for use in evacuating said chamber in association with said treatment process; and

arranging an exhaust arrangement for flow communication with said exhaust port for conducting an exhaust flow from the multi-workpiece chamber and including a flow divider arrangement which divides the exhaust flow into at least two exhaust flow portions that leave said multi-workpiece chamber in a way which enhances uniformity of said treatment process for the first and second workpiece stations.

58. The method of claim 57 wherein arranging causes the exhaust flow portions to be at least approximately equal to one another.

59. The method of claim 57 wherein said multi-workpiece chamber includes a chamber base which defines said exhaust port having said processing stations located on opposing sides thereof.

60. The method of claim 57 wherein arranging said exhaust arrangement includes attaching a tailpiece to the multi-workpiece chamber at the exhaust port to define an exhaust channel and locating a divider plate in said exhaust channel, as part of said flow divider arrangement, to form the two flow portions.

61. The method of claim 60 including providing said tailpiece having an at least generally cylindrical configuration to define a cylindrical exhaust passage.

62. The method of claim 60 including arranging said processing stations along a line extending therebetween and further arranging said divider plate at least generally normal to the line to define a plane which bisects said exhaust port.

63. The method of claim 62 wherein said multi-workpiece chamber includes an arrangement of chamber sidewalls extending from a chamber base for receiving a chamber lid and said plane symmetrically divides the multi-workpiece chamber into equal halves.

64. The method of claim 60 wherein said tailpiece is in the form of a pump spool having a length and arranging said divider plate to extend at least partially along said length.

65. The method of claim 64 wherein said divider plate is longer than said length so as to extend outward from the pump spool in a direction that is away from said chamber.

66. The method of claim 57 wherein said workpieces are semiconductor wafers.

67. An apparatus for processing workpieces in a treatment process which generates process related products, said apparatus comprising:

a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to a treatment process and defining an exhaust port that is at least generally between and equidistant from each of said processing stations and including an exhaust arrangement that is connected to said exhaust port to define an exhaust channel to support an exhaust flow for use in evacuating said chamber; and

a partition configuration that is configured to cooperate with said chamber such that the partition configuration is disengagably removable from the chamber and, thereafter, re-engagable with the chamber, said partition configuration including a partition portion that is positioned between said processing stations, when engaged with the chamber, and including a baffle portion supported by the partition portion and extending outward from said exhaust port and into said exhaust channel in a way which divides the exhaust flow into at least two exhaust flow portions that leave said multi-workpiece chamber in a way which enhances uniformity of said treatment process for the first and second workpiece stations.

68. The apparatus of claim 67 wherein said processing stations are located at least generally on a centerline and wherein said partition configuration defines a plane that is at least generally normal to and bisects said centerline.

69. The apparatus of claim 67 wherein said partition portion of said partition configuration is at least generally coplanar with said baffle portion.

70. The apparatus of claim 67 wherein said exhaust channel is at least generally circular in cross-section and the two exhaust flow portions include an at least generally equal cross-sectional area.

71. The apparatus of claim 67 wherein said workpieces are semiconductor wafers.

72. The apparatus of claim 67 wherein said certain ones of the process related products include non-reactive species and the other ones of the process related products include reactive species.

73. The apparatus of claim 67 wherein said partition portion is configured to provide for pressure equalization between said processing stations.

74. The apparatus of claim 67 wherein said baffle portion is formed as a solid at least generally planar sheet material.

75. The apparatus of claim 67 wherein said baffle portion includes a pair of major opposing surfaces that are rectangular in shape.

76. The apparatus of claim 67 wherein said partition portion and said baffle portion are integrally formed.

77. The apparatus of claim 67 wherein said exhaust channel is circular in cross section having a channel diameter and said baffle portion includes a width that is approximately equal to the channel diameter and the width of the baffle portion is receivable in the channel diameter.

78. The apparatus of claim 67 wherein said exhaust arrangement includes a pump spool defining a pump spool channel having a pump spool length and said pump spool is arranged proximate to the chamber such that the pump spool channel is aligned with and in flow communication with said exhaust port and such that said baffle portion extends into said pump spool and at least partially along the pump spool length.

79. A method for processing workpieces using a treatment process which generates process related products, said method comprising:

providing a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to a treatment process and defining an exhaust port that is at least generally between and equidistant from each of said processing stations and including an exhaust arrangement that is connected to said exhaust port to define an exhaust channel to support an exhaust flow for use in evacuating said chamber; and

configuring a partition configuration to cooperate with said chamber such that the partition configuration is disengagably removable from the chamber and, thereafter, re-engagable with the chamber, said partition configuration including a partition portion for positioning between said processing stations, when engaged with the chamber, and including a baffle portion supported by the partition portion and extending outward from said exhaust port and into said exhaust channel in a way which divides the exhaust flow into at least two exhaust flow portions that leave said multi-workpiece chamber.

80. The method of claim 79 including locating said processing stations at least generally on a centerline and positioning said partition configuration to define a plane that is at least generally normal to and bisects said centerline.

81. The method of claim 80 wherein said partition portion is arranged at least generally coplanar with said baffle portion.

82. The method of claim 79 including integrally forming said partition portion and said baffle portion.

83. The method of claim 79 including defining said exhaust channel having an at least generally circular cross-section and configuring the two exhaust flow portions to include an at least generally equal cross-sectional area.

84. The method of claim 79 wherein said workpieces are semiconductor wafers.

85. The method of claim 79 wherein said certain ones of the process related products include non-reactive species and the other ones of the process related products include reactive species.

86. The method of claim 79 including configuring said partition portion to provide for pressure equalization between said processing stations.

87. The method of claim 79 wherein said baffle portion is formed as a solid at least generally planar sheet material.

88. The method of claim 79 wherein said baffle portion includes a pair of major opposing surfaces that are rectangular in shape.

89. The method of claim 79 including forming said exhaust channel having a circular cross-section having a channel diameter and further forming said baffle portion to include a width that is approximately equal to the channel diameter and the width of the baffle portion is receivable in the channel diameter.

90. The method of claim 79 including providing a pump spool, as part of said exhaust arrangement, defining a pump spool channel having a pump spool length and arranging said pump spool proximate to the chamber such that the pump spool channel is aligned with and in flow communication with said exhaust port and such that said baffle portion extends into said pump spool and at least partially along the pump spool length.

91. An apparatus for processing workpieces in a treatment process which generates process related products, said apparatus comprising:

a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to the treatment process;

a first partition arrangement that is selectively removable from the multi-workpiece chamber and which is positionable between said processing stations, supported by the multi-workpiece chamber, for establishing an exchange characteristic of said process related products between said processing stations when so positioned; and

at least one modified partition arrangement for use in replacing the first partition arrangement to establish a modified exchange characteristic of said process related products between the processing stations.

92. The apparatus of claim 91 wherein said exchange characteristic relates to mobility of said process related products.

93. The apparatus of claim 91 wherein said workpieces are semiconductor wafers.

94. A method for processing workpieces in a treatment process which generates process related products, said method comprising:

providing a multi-workpiece chamber including at least two processing stations, each of which is configured for exposing one of the workpieces to the treatment process;

configuring a first partition arrangement for selective removal from the multi-workpiece chamber and for positioning between said processing stations, supported by the multi-workpiece chamber, for establishing an exchange characteristic of said process related products between said processing stations when so positioned; and

configuring at least one modified partition arrangement for use in replacing the first partition arrangement to establish a modified exchange characteristic of said process related products between the processing stations.

95. The method of claim 94 wherein said exchange characteristic relates to mobility of said process related products.

96. The method of claim 94 wherein said workpieces are semiconductor wafers.